semantic information and geometric information without input from an operator. A statistics generation system is provided to generate sporting statistics based on at least one of the semantic information and the geometric information received from the head-end system. And, a statistics management system stores and manages the sporting statistics received from the statistics generation system.

IN THE SPECIFICATION:

Please insert the following paragraph starting on page 2, line 11:

BRIEF SUMMARY OF THE INVENTION

Not Applicable

IN THE CLAIMS:

Please cancel claims 8, 10, 20, 22, 27, 29 without prejudice; amend claims 1, 4, 6, 11, 12, 14, 23, and 24; and add new claims 31-38 as follows:

1. (Amended) A method of automatic statistics generation and management, comprising:

receiving video input data of a sporting event;

generating in real-time semantic information and geometric information based on the video input data without input from an operator, wherein the semantic information and the geometric information generated are textual information, and the semantic information includes event model information; and

generating sporting statistics based on at least one of the semantic information and the geometric information.

4. (Amended) The method according to claim 1, further including providing the video input data from at least one video camera located at the sporting event.

6. (Amended) The method according to claim 1, further including:

processing the video input data to generate tracking information; and

processing the tracking information to generate the semantic information and the geometric information.

11. (Amended) An automatic statistics generation and management system, comprising:

a head-end system to receive video input data of a sporting event and to generate in real-time semantic information and geometric information based on the video input data without input from an operator, wherein the semantic information and the geometric information generated are textual information, and the semantic information includes event model information;

a statistics generation system to generate sporting statistics based on at least one of the semantic information and the geometric information received from the head-end system; and

a statistics management system to store and manage the sporting statistics received from the statistics generation system.

12. (Amended) The system according to claim 11, further including at least one video camera, located at the sporting event, to provide the video input data to the head-end system.

14. (Amended) The system according to claim 11, wherein the head-end system includes:

a tracking system to receive and process the video input data to generate tracking information; and

a production system to receive and process the tracking information to generate the semantic information and the geometric information.

23. (Amended) An automatic statistics generation and management system, comprising:

a head-end system including a tracking system to receive and process video input data of a sporting event to generate tracking information, and a production system to receive and process the tracking information to generate in real-time semantic information and geometric information based on the video input data without input from an operator, wherein the semantic information and the geometric information generated are textual information, and the semantic information includes event model information, and the semantic information includes event model information;

a statistics generation system including a model manager to receive and access the semantic information and the geometric information, and a statistics

generator to receive and process at least one of the semantic information and the geometric information to generate sporting statistics; and

a statistics management system having a statistics database to store and manage the sporting statistics, and a data miner to extract and analyze the sporting statistics stored in the statistics database.

a8

24. (Amended) The system according to claim 23, further including at least one video camera, located at the sporting event, to provide the video input data to the head-end system.

Please add new claims 31-38 as follows:

Sub B2

31. (New) A program code storage device, comprising:

a program code storage medium; and

machine-readable program code, stored on the program code storage medium, having instructions to

a9

receive video input data of a sporting event,

generate in real-time semantic information and geometric information based on the video input data without input from an operator, wherein the semantic information and the geometric information generated are textual information, and the semantic information includes event model information, and

generate sporting statistics based on at least one of the semantic information and the geometric information.

32. (New) The program code storage device according to claim 31, wherein the machine-readable program code further includes instructions to store the sporting statistics.

33. (New) The program code storage device according to claim 31, wherein the machine-readable program code further includes instructions to analyze the sporting statistics.

34. (New) The program code storage device according to claim 31, wherein the machine-readable program code further includes instructions to provide the video input data from at least one video camera located at the sporting event.

a9

35. (New) The program code storage device according to claim 31, wherein the machine-readable program code further includes instructions to receive a query for the sporting statistics.

36. (New) The program code storage device according to claim 31, wherein the machine-readable program code further includes instructions to process the video input data to generate tracking information, and process the tracking information to generate the semantic information and the geometric information.

37. (New) The program code storage device according to claim 31, wherein the machine-readable program code further includes instructions to analyze the sporting statistics to discover patterns and predict future trends.

a9

38. (New) The program code storage device according to claim 31, wherein the input data is from a radio frequency (RF) beacon.